

# Magnetic quantum beating of gamma radiation on $^{181}\text{Ta}$ Nuclei

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## Abstract

A frequency-time variant of gamma resonance spectroscopy is suggested with the use of quantum interference on Mössbauer transitions induced under the conditions of gamma magnetic resonance. Calculations are performed for the  $^{181}\text{Ta}$  nucleus. It has been shown that the coherent dynamics of nuclear spins is essential for the formation of the time harmonics of the absorption spectrum. © 2005 Pleiades Publishing, Inc.

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